

Table of Contents

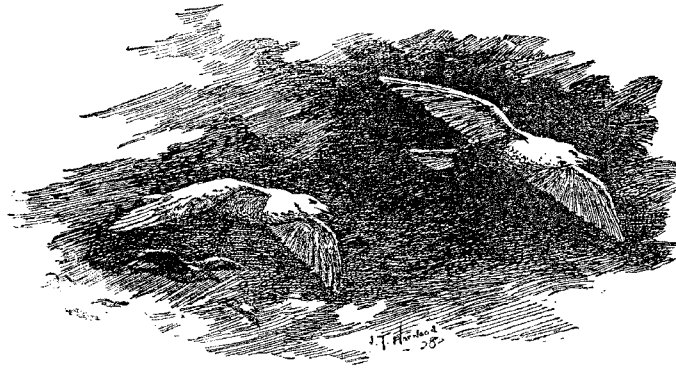
Introduction	1
Planning Project Deliverables	2
Decision Document	2
Resource Document	2
History of Planning and Management of Great Salt Lake	3
Great Salt Lake Authority (1963)	3
Re-establishment of the Authority (1967)	3
Department of Natural Resources (1967)	3
Division of the Great Salt Lake (1975)	4
Comprehensive Management Plan (1976)	4
Great Salt Lake Environs Report (1976)	5
Division of State Lands and Forestry (1979)	5
Great Salt Lake Contingency Plan (1983)	5
Great Salt Lake Advisory Council (1988)	5
General Management Plan, Great Salt Lake (1988)	5
Division of Sovereign Lands and Forestry (1994)	6
Great Salt Lake Comprehensive Management Plan (GSL CMP 1995)	6
Mineral Leasing Plan (MLP)(1996)	6
Current Department of Natural Resources Management Responsibilities	6
Division of Forestry, Fire and State Lands	6
Division of Wildlife Resources	7
Division of Parks and Recreation	7
Division of Water Rights	7
Division of Oil, Gas and Mining	8
Utah Geological Survey	8
Division of Water Resources	8
Other State Agencies	8
Department of Environmental Quality	8
Division of Environmental Response and Remediation	8
Division of Water Quality	8
Division of Air Quality	9
State Ownership and Trust Responsibilities	9
The Surveyed Meander Line	10
The Public Trust over Sovereign Lands	10
Rationale for the Selected Alternative	13
Great Salt Lake Planning Process	25
Overview	25
The Planning Process	25
Statement of Current Conditions and Trends	25
Great Salt Lake Management Alternatives	26
Economic Analysis	26
Scientific Review Committee	26
Salinity Engineering Study	27
Public Involvement Overview	27
Stakeholder Meetings	27
Public Meetings	28
Great Salt Lake Technical Team Involvement	28
Legislative and County Official Participation	28
Great Salt Lake Planning Team Presentations and Special Meetings	28
Media Involvement	28

Decision and Implementation Structure	29
Decision Process for Proposals on GSL	29
The Great Salt Lake Technical Team (GSLTT)	29
Appeal Process	30
Comprehensive Management Plan	30
Implementation	31
Goals and Objectives	31
Introduction	31
Goals	31
Objectives	31
Monitoring and Research	35
Current Monitoring and Research Activities	36
Agriculture	36
Grazing Impacts	36
Biology	36
Brine Shrimp Monitoring	36
Brine Shrimp Harvest Monitoring	36
Brine Shrimp Egg Survival Monitoring	36
GSL Algae Study	36
Brine Shrimp Population Model	36
Remote Monitoring Feasibility Study	36
Eared Grebe Population Monitoring	37
GSL Waterbird Counts	37
Eared Grebe Energetics Research	37
Waterfowl Census of GSL	37
Waterfowl Management Areas	37
Bird Banding	37
Chemistry	37
Salinity Sampling	37
Mineral Production	37
Commercial and Industrial	37
Access Conflicts	37
Hydrology	38
Stream Gaging	38
Lake Level	38
Weather Monitoring	38
Phase I Monitoring And Research Activities	40
Biology	40
Nutrient & Heavy Metal Inflow Monitoring	40
Chemistry	40
Salinity Sampling	40
Hydrology	40
Weir Flow Measurements	40
Breach and Culvert Flow Measurements	40
Land	41
Boundary Identification Survey	41
Phase II Monitoring and Research Activities	41
Agriculture	41
Grazing Impacts	41
Biology	41
Habitat Encroachment	41
Chemistry	41
Mineral Production	41
Commercial/Industrial	41
Access Conflicts	41

OHV Impacts	41
Hydrology	42
Satellite Imagery	42
Law Enforcement	42
Boundary Enforcement	42
Recreation	42
Recreation Impacts	42
Recreation Demands	42
User Conflicts	42
Trends/Response	42
Search & Rescue	42
Action Plans	42
Potential Partners for Monitoring and Research Activities	44
Appendices	45
Appendix A - Public Comments and Responses	47
Introduction	47
Public Comments on the Draft Comprehensive Management Plan	47
Comment Analysis	47
Introduction	47
Issue 1.1 Flood plain	47
Issue 1.2 Fluctuating lake level strategies	48
Issue 1.3 WDPP	49
Issue 1.4 Locomotive Springs	53
Issue 1.5 Water rights	53
Issue 1.6 Embayments	54
Issue 2.1 Salinity	56
Issue 2.2 Salt locations and quantities	66
Issue 3.1 Water quality	67
Issue 3.2 Wetland policy	70
Issue 4.1 Air Quality	71
Issue 5.1 Biology	72
Issue 6.1 Sovereign land classifications	76
Issue 6.2 Geologic hazards	77
Issue 6.3 BRMBR expansion	77
Issue 6.4 Diking policy	77
Issue 7.1 Mineral lease zones	78
Issue 7.2 Mineral lease policies	79
Issue 8.1 Water recreation opportunities	80
Issue 8.2 Navigability	81
Issue 9.1 OHV	84
Issue 9.2 Recreation opportunity and access	85
Issue 9.3 Education and interpretation	86
Issue 9.4 Hunting conflicts	86
Issue 10.1 Commercial and industrial use	87
Issue 10.2 Brine shrimp harbors	88
Issue 10.3 Unauthorized construction policy	91
Issue 11.1 Grazing	91
Issue 12.1 Transportation and utility corridors	92
Issue 13.1 Meander line identification	93
Issue 14.1 Search and rescue	94
Issue 15.1 Ramsar designation	94
Issue 16.1 Open space and critical lands	96
Issue 16.2 Visual resource management	96
Miscellaneous Comments.	96
Land Ownership/Private Lands	96
Public Trust Doctrine/Ecosystem	97

Resource Allocation	99
Goals and Objectives	99
Legacy Highway	101
Comment Contributors	102
Comments to Scoping	102
Comments on the Statement of Current Conditions and Trends	103
Comments on GSL Management Alternatives	104
Comments on the Draft Comprehensive Management Plan	105
Appendix B - Acronyms and Abbreviations	107
Appendix C - Exhibits	109

Introduction



Introduction

The Utah Department of Natural Resources (DNR) and the Utah Division of Forestry, Fire and State Lands (DFFSL) are jointly sponsoring the Great Salt Lake Planning Project to develop a coordinated natural resources management plan for the lands and resources of Great Salt Lake (GSL). Primary management responsibility for the lake's resources lies with DFFSL pursuant to Title 65A of the Utah Code, which governs management of all state lands. Specifically, Section 65A-10-8, *Great Salt Lake - Management Responsibilities of the Division*, requires the division to:

“(1) Prepare and maintain a comprehensive plan for the lake which recognizes the following policies:

(a) develop strategies to deal with a fluctuating lake level; (b) encourage development of the lake in a manner which will preserve the lake, encourage availability of brines to lake extraction industries, protect wildlife, and protect recreation facilities; (c) maintain the lake's flood plain as a hazard zone; (d) promote water quality management for the lake and its tributary streams; (e) promote the development of lake brines, minerals, chemicals, and petro-chemicals to aid the state's economy; (f) encourage the use of appropriate areas for the extraction of brines, minerals, chemicals, and petro-chemicals; (g) maintain the lake and the marshes as important to the waterfowl flyway system; (h) encourage the development of an

integrated industrial complex; (i) promote and maintain recreation areas on and surrounding the lake; (j) encourage safe boating use of the lake; (k) maintain and protect state, federal, and private marshlands, rookeries, and wildlife refuges; (l) provide public access to the lake for recreation, hunting and fishing.”

Section 65A-2-1 of the Utah Code provides; “The division [of Forestry, Fire and State Lands] shall administer state lands under comprehensive land management programs using multiple-use, sustained-yield principles.” Briefly stated, the overarching management objectives of DFFSL and DNR are to protect and sustain the trust resources of, and to provide for reasonable beneficial uses of those resources, consistent with their long-term protection and conservation. This means that DFFSL will manage GSL and its resources under multiple-use sustained yield principles (Section 65A-2-1), implementing legislative policies (Section 65A-10-8) and accommodating public and private uses to the extent that those policies and uses do not compromise public trust obligations and sustainability is maintained. Any beneficial use of public trust resources is subsidiary to long-term conservation of resources.

Although primary lake planning and management responsibilities lie with DFFSL, the other divisions of DNR also have management responsibilities for resources on and around GSL. The Division of Wildlife Resources (DWR), for example, has plenary authority for managing wildlife in, on and around the

lake. The Division of Parks and Recreation (DPR) manages Antelope Island State Park (AISP) and coordinates search and rescue and boating enforcement on the lake. The Division of Water Rights (DWRi) regulates the diversion and use of lake and tributary waters. The Division of Water Resources (DWRe) conducts studies, investigations and plans for water use, and operates the West Desert Pumping Project (WDPP). DNR divisions also regulate mineral extraction activities, conduct hydrologic research and identify and map geologic hazards around the lake.

In order to more specifically articulate DNR's management objectives for the resources of GSL, and to reconcile the diverse mandates of the divisions of DNR, the Great Salt Lake Planning Project was initiated.

The purposes of the Great Salt Lake Planning Project are:

- (1) To establish unifying DNR management objectives and policies for GSL trust resources;**
- (2) To coordinate the management, planning and research activities of DNR divisions on GSL;**
- (3) To improve coordination among DNR divisions, establish a decision-making proposal review and appeal process, develop a sovereign land management plan for the lake that balances multiple-use and sustainability, resolves issues and improves management of the lake and its resources;**

- (4) To develop a sovereign lands and resources management plan; and**
- (5) To establish processes for plan implementation, monitoring, evaluation and amendment.**

Planning Project Deliverables

Decision Document

This is the final Great Salt Lake Decision Document (GSLDD). It contains an overview of the planning process, the record of decision, implementation activities monitoring and research activities and goals and objectives. Public comments in response to the Draft CMP are included with their responses.

Resource Document

The Draft CMP will become the supporting reference for the decision document. It will be called the Resource Document (GSLRD). The Statement of current Conditions and Trends (SCCT) section will be revised to reflect public comment recommendations (Spring 2000). This inventory and other supporting information provides the framework for the decision document. It will be revised as needed to reflect changing demand for public uses, lake issues and lake conditions.

History of Planning and Management of Great Salt Lake

Great Salt Lake Authority (1963)

In 1963, the Utah Legislature enacted House Bill No. 33 creating the GSL Authority, and an advisory council to the authority (Laws of Utah 1963, Chapter 161). The authority was empowered to “coordinate multiple-use of [Great Salt Lake] property for such purposes as grazing, fish and game, mining and mineral removal, development and utilization of water and other natural resources, industrial, and other uses in addition to recreational development, and adopt such reasonable rules and regulations as the authority may deem advisable to insure the accomplishment of the objectives and purposes of the act.” The bill specified that both the state Department of Fish and Game and the state Land Board would retain the powers and jurisdiction conferred upon them, subject to such reasonable rules and regulations as the authority may make to ensure the accomplishment of the objectives of the act. The authority made little progress in discharging its duties and, in 1966, the Utah Supreme Court declared that the act creating the authority was unconstitutional as it failed to define the authority’s geographical jurisdiction.

Re-establishment of the Authority (1967)

The legislature cured the jurisdictional defect in 1967 when it re-created the GSL Authority (Laws of Utah 1967, Chapter 187). With legislation, the authority’s geographical jurisdiction was defined, and included the mainland,

peninsulas, islands and waters within the GSL meander line established by the U.S. Surveyor General.

The purpose of the re-created authority was to establish and coordinate programs for development of recreational areas and water conservation within GSL and its environs, and in conjunction to provide for: (1) the development of such area of Antelope Island as the authority may determine to be suitable and desirable for recreational usage, (2) testing the feasibility of the use of [Kennecott Copper] tailings in the development of GSL and its environs, and (3) the restoration and preservation of points of historical interest on Antelope Island.

A preliminary feasibility study for the recreational development of the north end of Antelope Island was prepared by Snedaker & Budd and Allred & Associates for the GSL Authority, and was submitted on June 26, 1964. In 1965, a document entitled, *A Preliminary Master Plan for the Development of Great Salt Lake Over a Period of the Next 75 Years* was prepared for the GSL Authority. This plan envisioned the use of surplus waters from the Bear River, Weber River and Jordan River drainage areas, and using Kennecott tailings material for the construction of dikes, highways and land reclamation within Farmington Bay.

Department of Natural Resources (1967)

After the creation of DNR in 1967, the GSL Authority was abolished, and functions of the authority were merged into DPR.

Division of the Great Salt Lake (1975)

The 1975 general session of the Utah Legislature enacted House Bill No. 23 which established a board and division within DNR to establish and coordinate programs for development of recreation areas, flood control, wildlife resources, industrial uses and conservation of GSL. The Division of Great Salt Lake (DGSL) was given the responsibility to determine the direction and implementation of all lake-related activities, working through existing DNR divisions. In addition, the division was given the following powers and duties:

(1) direct the preparation of and adopt a comprehensive plan for the lake in a manner which will assure the maximum interchange of information, ideas, and programs with affected state, federal and local agencies, private concerns, and the general public. Implement the provisions of the plan by utilizing the existing authority of the various state and local entities or agencies concerned. Weigh the policies and programs of agencies that affect the lake to ensure their compatibility with the adopted comprehensive plan. Revise and update the plan at periodic intervals. (2) employ assistants and advisors deemed necessary for the purposes of the act, (3) initiate studies of the lake and its related resources, (4) publish or authorize the publication of scientific information, (5) define the lake's flood plain, (6) qualify for, accept and administer loan payments, grants, gifts, loans or other funds for carrying out any functions under the act, (7) determine the need for and desirability of public works and utilities for the lake area, (8) cooperate with the state engineer and all upstream entities in considering the

water relationship between the lake and its tributaries, and (9) perform all other acts reasonably necessary to carry out the purposes and provisions of the act.

Comprehensive Management Plan (1976)

Under the directive of House Bill No. 23, DGSL began preparation of a *Comprehensive Management Plan* in July of 1975. The plan was developed through the inter-agency technical team which was established under the terms of the 1975 legislation. The inter-agency technical team was made up of representatives from various interests, public and private, and included representatives from several divisions of DNR, Utah Department of Transportation (UDOT), county commissioners of the five counties surrounding the lake and other representatives who served on the basic committees.

The *Comprehensive Management Plan* for GSL was intended to serve as a general statement for use and management of the lake. Goals and policies based on the concepts set forth in the legislation, and as adopted by the GSL Board, served as a guide for preparation of the plan. The plan consisted of six major sections: minerals, recreation, tourism, wildlife, hydrology, and transportation. The plan for each of the sections was developed after consideration of the interrelationships of plan sections and was not intended to be a detailed development plan for private agencies or for divisions of local, state or federal government.

Great Salt Lake Environs Report (1976)

The *Great Salt Lake Environs Report* was prepared in 1976 as a companion report to the *Comprehensive Management Plan*. The purpose of the report was to summarize and graphically portray the most current, accurate and reliable data available concerning land use ownership, soils, vegetation, human-made structures, access ways, freshwater and utilities lying between the water's edge on January 1, 1976, and the upper limits study line established at approximately 4212.

Division of State Lands and Forestry (1979)

In 1979, DGSL was eliminated, and the staff functions for the management of GSL were transferred to DNR. Later, management was administratively delegated to the Division of State Lands and Forestry (DSLFF), now known as DFFSL.

Great Salt Lake Contingency Plan (1983)

In 1982, the water level of GSL began a rapid rise which prompted DSLF to draft the *Great Salt Lake Contingency Plan*. This plan was designed to meet the legislative mandate for maintaining the water level of GSL below 4202, and deals with background, analysis and recommendations for influencing both the high and low levels of GSL. The contingency plan states: "It is anticipated that lake levels will peak at approximately 4203 in 1983 with potential resultant damages of \$20 to \$30 million." Ironically, the lake peaked at approximately 4205 that year, and continued upward to nearly 4212 in

1987, with estimated capital damages exceeding \$250 million (Bureau of Economic and Business Research, 1983). The causeway was breached in 1984 to lessen flooding impacts occurring in the south arm. The WDPP was built in 1986-87 and operated from April 1987-June 1989.

Great Salt Lake Advisory Council (1988)

In 1988, the Great Salt Lake Advisory Council (GSLAC) was created by legislative action to advise the Board of State Lands and Forestry through DSLF, which was designated as manager of the lake. Great Salt Lake Technical Team (GSLTT) was given statutory authorization at the same time.

General Management Plan, Great Salt Lake (1988)

As GSL reached its historic high water level of 4211.85 in 1986 and again in 1987, a five-year *General Management Plan, Great Salt Lake* was prepared for GSLAC. The general management plan, and the "Beneficial Development Area" (BDA) concept developed by the Utah Division of Comprehensive Emergency Management, was a cooperative attempt to outline the best strategies available to avoid flood-related impacts to those utilizing the lake under its high-water and expected near-future conditions for a variety of purposes. Both the plan and the BDA concept were delivered to the five counties bordering the lake for adoption, and were adopted by the Federal Emergency Management Agency.

Division of Sovereign Lands and Forestry (1994)

In 1994, management responsibilities for school and institutional trust lands were placed with the newly created School and Institutional Trust Lands Administration (SITLA). The Board of State Lands and Forestry and the GSLAC were eliminated, and the Sovereign Lands Advisory Council (SLAC) was created to advise the newly-named DFFSL. DFFSL retained management responsibility for public trust lands and resources, and was able to devote more time to planning and management of these lands as public-trust lands, with a broader view of how the lake's many trust resources are interrelated.

Great Salt Lake Comprehensive Management Plan (GSL CMP 1995)

Completed in 1995, the *Great Salt Lake Comprehensive Management Plan - Planning Process and Matrix* was prepared by the GSLTT for DFFSL and DNR. The goal of the plan was to, "... provide needed information and guidance in the form of recommendations to federal, state and local governments, and recommended legislation to the state legislature to facilitate and enhance management of GSL and its environs to assure protection of the unique ecosystem of the lake while promoting balanced multiple-resource uses."

As described in its goal statement, the 1995 plan includes analyses of lake management issues, and makes recommendations on those issues to local, state and federal government. Many of the recommendations have been acted upon by divisions of DNR, including development of the Mineral Leasing Plan (MLP) by DFFSL. Notable

exceptions include actions on WDPP and water quality standards. The fate of recommendations involving local government has not been fully analyzed or reported.

Mineral Leasing Plan (MLP)(1996)

As an outgrowth of the 1995 plan, DFFSL announced the withdrawal of sovereign lands from minerals leasing as part of a comprehensive planning process for management of minerals on those lands. Included were GSL, Utah Lake and the Jordan River, and portions of Bear Lake, Bear River, Colorado River and Green River. To accomplish its planning and management mandates, DFFSL is creating mineral leasing plans for each area. The MLP is the first of these plans to be completed. This document reviews the history of mineral ownership and leasing, inventories mineral resources and examines the existing conflicts among resources on the lake. The MLP zones the lake bed for mineral commodity production and specifies new mineral leasing procedures.

Current Department of Natural Resources Management Responsibilities

Division of Forestry, Fire and State Lands

DFFSL is "...the executive authority for the management of sovereign lands..." in Utah, including the sovereign lands of GSL. Title 65A of the Utah Code, entitled "State Lands", establishes the division and the Forestry, Fire and State Lands Advisory Council, and sets forth the powers and responsibilities of the division and council. Section 65A-10-8

establishes the division's responsibility to prepare and maintain a management plan for GSL under paragraph (1), and establishes other responsibilities for the lake as follows:

- “(2) Employ personnel and purchase equipment and supplies which the legislature authorizes through appropriations for the purposes of this chapter.
- (3) Initiate studies of the lake and its related resources.
- (4) Publish scientific and technical information concerning the lake.
- (5) Define the lake's floodplain.
- (6) Qualify for, accept and administer grants, gifts, or other funds from the federal government and other sources, for carrying out any functions under this chapter.
- (7) Determine the need for public works and utilities for the lake area.
- (8) Implement the comprehensive plan through state and local entities or agencies.
- (9) Coordinate the activities of the various divisions within the Department of Natural Resources with respect to the lake.
- (10) Perform all other acts reasonably necessary to carry out the purposes and provisions of this chapter.
- (11) Retain and encourage the continued activity of the Great Salt Lake Technical Team.”

Division of Wildlife Resources

Title 23 of the Utah Code establishes DWR and the Wildlife Board and establishes their duties and powers. Section 23-14-1 provides, “The Division of Wildlife Resources is the wildlife authority for Utah, and is vested with the functions, powers, duties, rights and responsibilities provided in this title and

other law.” The section goes on to provide, “Subject to the broad policy making authority of the Wildlife Board, the Division of Wildlife Resources shall protect, propagate, manage, conserve, and distribute protected wildlife throughout the state.”

The division manages wildlife areas on GSL, regulates hunting, manages all protected wildlife species and regulates the commercial harvest of brine shrimp from the lake. The legislature has authorized the division to utilize all or parts of 39 townships of sovereign lands on the lake for the “creation, operation, maintenance and management of wildlife management areas, fishing waters, and other recreational activities” (Section 23-21-5, Utah Code). Not all lands so authorized are now under management by the division for the authorized purposes.

Division of Parks and Recreation

Chapter 63-11 of the Utah Code establishes the division and the Board of Parks and Recreation, and sets forth their responsibilities. The division manages AISP, Willard Bay State Park, and the Great Salt Lake Marina (GSLM) on the south shore of the lake.

DPR is also directly responsible for boating enforcement on GSL. DPR personnel also work closely with five county sheriff offices (Box Elder, Davis, Salt Lake, Tooele, Weber) to respond to search and rescue needs on the lake.

Division of Water Rights

DWRi regulates the appropriation and distribution of water in the State of Utah, pursuant to Title 73 of the Utah Code. The State Engineer, who is the director

of DWRI, gives approval for the diversion and use of any water, regulates the alteration of natural streams and has the authority to regulate dams to protect public safety. All diversions from the lake for all purposes, including mineral extraction by evaporation, require the prior approval of the State Engineer. Any dam or dike placed in the lake requires consultation from the division.

Division of Oil, Gas and Mining

The Division of Oil, Gas and Mining (DOGM) is the regulatory agency for mineral exploration, development and reclamation on GSL, pursuant to Title 40 of the Utah Code. This regulatory role is conducted in close coordination with DFFSL.

Utah Geological Survey

The Utah Geological Survey (UGS), is responsible for collecting, preserving, publishing and distributing reliable information on geology, brine and mineral resources and geologic hazards related to the state, including GSL. UGS is also responsible for assisting, advising and cooperating with state and local agencies and state educational institutions on all subjects related to geology.

Division of Water Resources

The mission of the Utah Board and DWRe is to direct the orderly and timely planning, conservation, development, protection and preservation of Utah's water resources used to meet the beneficial needs of Utah citizens. Although the division does not have direct regulatory responsibilities on GSL, it conducts studies, investigations and planning for water use, and is responsible

for maintenance and operation of the WDPP.

Other State Agencies

Department of Environmental Quality

Division of Environmental Response and Remediation

Federal and state laws require prompt reporting of environmental incidents. Depending on the nature of the incident reports may be made to specific regulatory agencies, but in all cases the Division of Environmental Response and Remediation may be contacted to forward the report to the appropriate agency. Follow-up activity often involves preparation of a written report summarizing the incident and remedial actions taken.

Division of Water Quality

The Utah Water Quality Board and the Division of Water Quality (DWQ) have the responsibility to maintain, protect and enhance the quality of surface and ground water resources. The board is charged with developing programs for prevention and abatement of water pollution. The board also is responsible for: establishing water quality standards throughout the state; enforcing technology-based, secondary treatment effluent standards or establishing and enforcing other more stringent discharge standards to meet in-stream standards; reviewing plans, specifications and other data relative to waste-water disposal systems; establishing and conducting a continuing planning process for control of water pollution.

DWQ's mission is to protect public health and all beneficial uses of water by maintaining and enhancing the chemical, physical and biological integrity of Utah's waters. Objectives designed to achieve this mission are:

- Classify waters according to beneficial use and set water quality standards, including numeric and narrative criteria, to protect those uses;
- Achieve full compliance with treatment and water quality standards by ensuring the adequacy of planning, design, construction, and operation of municipal and industrial wastewater standards through appropriate technical assistance, regulation and enforcement;
- Develop and update pertinent regulations, policies, and strategies;
- Generate a comprehensive water quality data base;
- Conduct water quality management planning and continue to implement an effective statewide non-point source control program;
- Implement the ground water quality protection strategy.

Division of Air Quality

The Division of Air Quality (DAQ) facilitates Air Quality Board members as proactive participants in addressing air pollution issues and in shaping environmental policy. The following objectives support DAQ's mission:

- Involve others in the process; develop state implementation plans (SIP), issue permits, compliance and other public process activities.
- Partner with other in-state government agencies to develop and implement programs for the

protection of air quality statewide and achieve and maintain acceptable air quality along the Wasatch Front.

- Maintain delegation of federal air quality programs by developing appropriate plans, programs, policies, procedures and rules.
- Influence state, regional and national policy through active involvement with the legislature and policy making organizations.
- Increase public awareness to educate the general public and businesses on emissions reduction.

State Ownership and Trust Responsibilities

Under English common law, the Crown held title to all lands underlying navigable waterways, subject to the Public Trust Doctrine. Following the American Revolution, title to such lands in the U.S. vested in the 13 original colonies. Under the Equal Footing Doctrine, fee title to those lands also vested in each state subsequently admitted to the Union, upon admission. Utah's public trust lands, known as "sovereign" lands, lie below the ordinary high water mark of navigable bodies of water.

The boundaries of sovereign lands are established by the location of the ordinary high water mark of a water body. For the ocean and most rivers and lakes, the ordinary high water mark is relatively constant, and can be identified reliably from year to year. Because rivers and streams establish many important boundaries and can move over time, the common law doctrine of reliction and accretion holds that slow, gradual movement of a river or stream course over time will result in relocation of the

property boundary to follow the movement. Sudden changes in course, as by flooding or other upset, will not result in the relocation of the property line.

In 1959, the Bureau of Land Management (BLM) challenged the state's claim to much of the shoreline of the lake, arguing that the declining lake level was resulting in the "reliction" of shore lands, and the relocation of the boundary between state and adjacent federal land, to BLM's advantage. In 1976, the U.S. Supreme Court determined that the state owns of all the lands, brines and other minerals within the bed and waters of the lake, and all shore lands located within the officially surveyed meander line.

The Surveyed Meander Line

The surveyed meander line is not, however, a constant elevation around the lake. The meander line was surveyed in segments between 1855 and 1966, during which time the water level of the lake fluctuated. Different segments of the line therefore lie at different elevations. The elevation of the meander line generally ranges between about 4202 and 4212 above mean sea level. In some locations the meander line runs across topographical features of higher elevation substantially inland of the shoreline. Regardless of its location relative to the water's edge and lake level, the officially surveyed meander is the adjudicated, fixed and limiting boundary between sovereign land and upland owners. (See Exhibit 1.)

The surveyed meander line is not usually identifiable on the ground without the aid of surveying or global positioning system equipment. To avoid trespass situations, DFFSL requires applicants to provide surveyed legal descriptions for leases and

easements on GSL. Upland owners likewise should have the meander line located by survey whenever they need to know the location of the boundary between sovereign land and adjoining land.

The Public Trust over Sovereign Lands

Under A.D. 6th Century Roman law, and perhaps earlier, the air, sea and running waters were common to all citizens and the separate property of none. All rivers and ports were public and the right of fishing was common to all. Any person was at liberty to use the seashore to the highest tide, to build a retreat on it, or to dry nets on it, so long as they did not interfere with the use of the sea or beach by others. Although the banks of a river could be privately owned, all persons had the right to bring vessels to the banks, to fasten them by ropes and to place any of their cargo there. The influence of Roman civil law carries forward through English common law to today's Public Trust Doctrine, which recognizes the special public interest in rivers, lakes, tidelands and waters. The Public Trust Doctrine "is founded upon the necessity of preserving to the public the use of navigable waters free from private interruption and encroachment" (Illinois Central R.R. Co. V. Illinois, 1892).

Sovereign lands are held in trust by the state for the benefit of the public. The "trust" is a real trust in the legal sense of the word. There is a clear and definite trust corpus (the lands, waters and living resources therein), clear beneficiaries (the public), elected and appointed state officials with fiduciary responsibilities in managing the trust corpus and a clear purpose for the trust. The Public Trust Doctrine establishes the right of the

public to use and enjoy these trust waters, lands and resources for a wide variety of recognized public uses. The original purpose of the doctrine was to assure public access to navigable waters for commerce, navigation and fishing. That has evolved, in some states, to include modern uses such as recreation, environmental protection and preservation of scenic beauty. Implementation of multiple-use and other legislative policies for GSL is subject to consistency with public trust obligations, and must meet the criterion to avoid substantial impairment of public trust uses.

The Public Trust Doctrine has been, and will continue to be, flexible to accommodate changing demands for public trust resources. There is no hierarchy of uses protected under the doctrine, but when there are competing public benefits, the public trust requires that those benefits that best preserve the purpose of the public trust under the circumstances should be given a higher priority. The Utah Legislature has assigned responsibility for management of sovereign lands, including GSL, to DFFSL. As trustee, DFFSL must strive for an appropriate balance among compatible and competing uses specified in statute while ensuring that uses protected under the Public Trust Doctrine have primacy. It is desirable to maintain the option to adjust the allocation of public trust resources in response to changes in demand and changes in administrative and legislative policy.

Sale of sovereign lands is generally precluded by the constitutionally-imposed duty of the state to manage sovereign lands for the public. The general exception to this prohibition is if the disposition itself is in the furtherance

of the public interest. The Utah Legislature has chosen to protect the public interest when sovereign land is sold or leased by requiring that "...the lease, contract of sale, or deed shall contain a provision that:

- (a) these lands shall be open to the public for the purpose of hunting, trapping, and fishing upon them during the lawful season, except:
 - (i) where the lands are situated in incorporated or unincorporated towns or cities; and
 - (ii) when it is mutually agreed by the director of the Division of Forestry, Fire, and State Lands and the Wildlife Board that the lands may be leased or sold for exploration or development of minerals including oil and gas; and
- (b) no charge may be made by the lessee, contractee, or grantee to any person who desires to go upon the land for the purpose of hunting, trapping, or fishing."

Even so, there are circumstances under which a lessee or grantee must be able to restrict public access to fully enjoy the rights granted under a lease, permit or sale. Examples include restrictions during mining operations, construction of improvements, harbor operations, military operations and access to personal property. The test of any disposition of an interest in sovereign land is that it must be done without any substantial impairment of the public interest in the lands and waters remaining. Once again, this involves a judgement call on the degree of impairment of the trust resource or the public's trust rights therein.